

IN THE CLAIMS:

1. (Previously presented) A device comprising:
 - a lead body navigable within portions of a cardiac anatomy;
 - a sensor disposed on the lead body and sensing a physical parameter relating to a distinguishing characteristic of blood present within a right atrium and blood exiting from a coronary sinus into the right atrium;
 - a navigation processor communicatively coupled with the sensor for receiving the sensed physical parameter and manipulating a plurality of the sensed physical parameter into a navigational data set; and
 - a navigational output device communicatively coupled with the navigational processor, wherein the navigational data set is output by the navigational output device,wherein the sensor comprises a temperature sensor and wherein the distinguishing characteristic comprises a temperature difference between the blood present within a right atrium and blood exiting from a coronary sinus into the right atrium.
2. (canceled)
3. (Previously presented) A device according to claim 1, wherein the temperature sensor comprises a thermistor.
4. (Previously presented) A device according to claim 1, wherein the temperature sensor comprises a thermocouple.
5. (Previously presented) A device according to claim 1, further comprising at least one additional sensor operatively coupled to the navigation processor and wherein said at least one additional sensor is selected from the group

consisting of: an oxygen sensor, a pressure sensor, a chemical sensor, an ultrasound sensor, an optical sensor.

6. (Previously presented) A device according to claim 5, wherein a plurality of sensors are disposed on the lead body.

7. (Original) The device of claim 1, wherein the navigational output device transmits audible navigational instructions.

8. (Original) The device of claim 1, wherein the navigational output device is a visual display.

9. (Original) The device of claim 1, further comprising:
a patient imaging device for providing patient image data; and
a supplemental patient parameter monitor for sensing supplemental patient parameter, wherein the patient image data and the supplemental patient parameter are provided to the navigational processor so that the navigational data is based upon the supplemental patient parameter, the image data, and the sensed physical parameter.

10. (Original) The device of claim 1, wherein the navigational data provides direction for moving the lead body to a targeted anatomical feature.

11. (Original) The device of claim 1, wherein the navigational data provides confirmation if the lead body is at a targeted anatomical feature.

12. (Previously presented) A system comprising:
means for manipulating and directing a device within a portion of cardiac anatomy, namely a right atrial chamber of a subject;

means for sensing a physical parameter coupled to the means for manipulating and directly relating to a blood temperature of said right atrial chamber and a temperature of blood exiting a coronary sinus of the subject;

means for processing the physical parameter into navigational information for inserting a distal portion of a medical electrical lead into said coronary sinus;

and

means for presenting the navigational information,

wherein the physical parameter comprises a temperature difference between the blood temperature present within said right atrium and a temperature of blood exiting from said coronary sinus.

13. (original) The system of claim 12, wherein the means for presenting include an audible command.

14. (original) The system of claim 12, wherein the means for presenting include a visual display.

15. (original) The system of claim 12, further comprising

means for acquiring imaging data; and

means for combining the imaging data and the navigational information for presentation by the means for presenting.

16. (Previously presented) A method of navigating a lead within cardiac anatomy, the method comprising:

passing a lead having a temperature sensor into a right atrial chamber;

sensing temperature values within the right atrial chamber to determine an averaged value;

sensing temperature values within the coronary sinus; and

comparing the temperature values within the coronary sinus to the averaged temperature value and determining that the lead is within the coronary sinus based upon the comparison.

17. (Previously presented) A method of navigating a lead within cardiac anatomy, the method comprising:

directing a lead having a temperature sensor into a right atrial chamber;
measuring an average temperature value for blood present in the right atrial chamber;

moving the lead about the right atrial chamber to obtain differing temperature values; and

moving the lead towards a targeted area of the right atrial chamber based upon an increased temperature value relative to the average temperature, wherein said targeted area comprises a coronary sinus of a subject.

18. (original) The method of claim 17, further comprising confirming that the lead has reached the targeted area based upon the increased temperature values.

19. (original) The method of claim 18, wherein data from the temperature sensor is processed to provide audible navigation information.

20. (original) The method of claim 18, wherein data from the temperature sensor is processed to provide graphical navigation information.